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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,266	01/14/2004	George Koutlakis	030901	4897
26285	7590	01/21/2005	EXAMINER	
KIRKPATRICK & LOCKHART NICHOLSON GRAHAM LLP			MARCHESCHI, MICHAEL A	
535 SMITHFIELD STREET			ART UNIT	PAPER NUMBER
PITTSBURGH, PA 15222			1755	

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary.**

Application No.

10/757,266

Applicant(s)

KOUTLAKIS ET AL.

Examiner

Michael A Marcheschi

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 and 33-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                        |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/14/04, 7/13/04</u> . | 6) <input type="checkbox"/> Other: ____.   |

Art Unit: 1755

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-14 and 33-46, drawn to a method of treating, classified in class 451, subclass 36.
- II. Claims 15-32, drawn to a polysaccharide material, classified in class 51, subclass 298.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the process for using the product as claimed can be practiced with another materially different product, such as a different organic material or an inorganic material.

Because these inventions are distinct for the reasons given above and (1) have acquired a separate status in the art as shown by their different classification and (2) have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with William E. Kuss on 1/5/05 a provisional election was made without traverse to prosecute the invention of Group II, claims 15-32. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-14 and 33-46 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Art Unit: 1755

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Claims 16, 19, 21, 23, 25, 27 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1755

Claims 16, 19, 21, 23, 25 and 27 are indefinite as to the phrase "glass-like" because the claims includes elements not actually disclosed (those encompassed by "-like"), thereby rendering the scope of the claim(s) unascertainable. In addition, the examiner is unclear as to what glass-like encompasses, this means, thus rendering the scope of the claims unclear. The phrase "glass like" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree (of like), and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 32 is as to the limitation "other products for treating substances" because the examiner is unclear as to what this encompasses, thus rendering the scope of the claim unclear. What are the other products and what are the substances?

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-32 are rejected under 35 U.S.C. 103(a) as obvious over Koutlakis et al. (257).

The reference teaches in column 2, lines 9-11, column 3, line 32-column 6, line 40 and the claims, polysaccharide abrasive grits which are made by the same steps (a-d) of instant claim 16. It is also shown that polysaccharide abrasive grits are known to be cross-linked. The resulting grits have a hardness and moisture content within the claimed range.

Art Unit: 1755

The reference teaches polysaccharide abrasive grits which are made by the same steps (a-d) of instant claim 16 and the use of a cross linking agent and corresponding method of instant claim 15 are obvious to the skilled artisan because the reference teaches in the background that cross linking polysaccharides are known and thus its use in the reference method and composition is obvious to the skilled artisan absent evidence to the contrary. With respect to the polysaccharide being fragments, it is the examiner's position that during crushing of the resulting material, fragments will be apparent. With respect to the size, the examiner acknowledges that this reference teaches a minimum size of about 12 mesh but it is the examiner's position that since independent claim 1 fails to define a size, the claim is not limited to any size and thus the size defined in the specification can be considered a preferred embodiment. In other words, since independent claim 1 does not define a size, the broad interpretation of the claim is that the polysaccharide can have a broad size and is not limited to the specific size in the specification. **Since a reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421, it is the examiner's position that claim 1 of the reference realistically teaches polysaccharide grits that are not limited in size.** If the reference claim only intended to make polysaccharide grits of the size defined in the specification, **the claim would have recited said size**. In summary, since no size is recited in the independent claim, the claim is not limited to the size defined in the specification and therefore said size can be other than the ones disclosed absent evidence to the contrary. This is apparent because it is the examiner's position that since the reference claim fails to mention any specific size (criticality), this (the absence of any such limitation) constitutes a broad teaching of sizes, as long as the final material is obtained. In view of this, it can be

Art Unit: 1755

reasonably interpreted that the claimed values are encompassed by the broad teachings according to this reference in the absence of any evidence showing the contrary (criticality). Finally, the desired particle size is a function of the application and mere recitation of that size does not represent a patentable distinction over this reference to one of ordinary skill in the art, lacking evidence to the contrary.

With respect to the dependent claims, all of said limitations are disclosed by the reference.

Claims 15, 17, 18, 20, 22, 24, 26 and 28-32 are rejected under 35 U.S.C. 103(a) as obvious over Lane et al. (068).

The reference teaches in column 3, line 59-column 8, line 50 and the claims, polysaccharide abrasive grits which are made by the same steps (a-c) of instant claim 15. The resulting grits have a hardness and moisture content within the claimed range.

The reference teaches polysaccharide abrasive grits which are made by the same steps (a-c) of instant claim 15. With respect to the polysaccharide being fragments, it is the examiners position that during crushing of the resulting material, fragments will be apparent. With respect to the size, the examiner acknowledges that this reference teaches a minimum size of about 12 mesh (in the examples) but it is the examiners position that since independent claim 1 fails to define a size, the claim is not limited to any size and thus the size defined in the specification can be considered a preferred embodiment (i.e. the teaching in an example are the preferred embodiments). In other words, since independent claim 1 does not define a size, the broad interpretation of the claim is that the polysaccharide can have a broad size and is not limited to

Art Unit: 1755

the specific size in the specification. **Since a reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421, it is the examiners position that claim 1 of the reference realistically teaches polysaccharide grits that are not limited in size.** If the reference claim only intended to make polysaccharide grits of the size defined in the specification, **the claim would have recited said size**. In summary, since no size is recited in the independent claim, the claim is not limited to the size defined in the specification and therefore said size can be other than the ones disclosed absent evidence to the contrary. This is apparent because it is the examiners position that since the reference claim fails to mention any specific size (criticality), this (the absence of any such limitation) constitutes a broad teaching of sizes, as long as the final material is obtained. In view of this, it can be reasonably interpreted that the claimed values are encompassed by the broad teachings according to this reference in the absence of any evidence showing the contrary (criticality). Finally, the desired particle size is a function of the application and mere recitation of that size does not represent a patentable distinction over this reference to one of ordinary skill in the art, lacking evidence to the contrary.

With respect to the dependent claims, all of said limitations are disclosed by the reference.

In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

**"A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236**



Art Unit: 1755

(CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968)". In addition, "A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549; *In re Wertheim* 191 USPQ 90 (CCPA 1976)".

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356.

The additional references cited on the 1449 have been reviewed by the examiner and are considered to be art of interest since they are cumulative to or less than the art relied upon in the above rejections.

Any foreign language documents submitted by applicant has been considered to the extent of the short explanation of significance, English abstract or English equivalent, if appropriate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

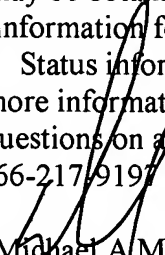
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L Bell can be reached on (571) 272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1755

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/10/05

MM

  
Michael A. Marcheschi  
Primary Examiner  
Art Unit 1755